

**Modified Compensatory Measures Proposed for Investments
Planned in Natura 2000 Sites as part of the Amendments of
the Settlement Regulation Plan of the City of County Rank of
Győr Elaborated According to the Consultation held on the
12th of November, 2010 with**

the European Commission

Compiled by

Directorate of Fertő-Hanság National Park

with the co-operation of

the Directorate of Duna-Ipoly National Park and the
Directorate of Kiskunság National Park

By approval of the

Ministry of Rural Development
Ministry for National Economy

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Damages caused by individual investments

Investments planned at the "HUFH20009 Gönyői homokvidék" SAC have different impact on the features for which the site has been designated. The impact assessment prepared with reference to the settlement regulation plan makes the magnitude of direct impacts apparent. Habitats subject to deterioration resulting from the fragmentation due to the investments, cannot be linked directly to any of those, yet these emerge from the joint impact of two or more of those. Therefore we suggest to divide it amongst the affected investments.

Deterioration or destruction (by hectares) caused by particular investments affecting habitat types of Community interest. (potentially affected part of the complete site is marked in brackets)

Investment	6260 Pannonic sand steppes (ha)	9110 Euro-Siberian steppic woods with Quercus spp. (ha)	91N0* Pannonic inland sand dune thicket (Junipero- Populetum albae) (ha)
Investment area of AHM Kft	115 (3)	0,4	4,4
Eastern bypass and adjacent road network	21,5 (14)	6,6 (3,6)	1 (1)
Dózsa-tagi economic area	2,4	0	0
Modification of industrial railway tracks	4,0 (3)	0	0
Total	143	7	5,5

*the site is not designated for this habitat

Habitats Directive Annex II species present at the deteriorating area are the sand iris (*Iris humilis* ssp. *arenaria*) and the Hungarian carabus (*Carabus hungaricus*). A detailed description of species under Annexes II and IV occurring on the site but for which the site is not designated is included in the Natura 2000 impact assessment.

Compensatory measures to be proposed by the Hungarian State shall not be consolidated, according to the Bruxelles conciliation and the practice of the Hungarian authorities it should be described disunited by each investment. Accordingly, compensatory measures shall be discussed below by investments.

Summary of Proposed Compensatory Measures

	6260 Pannonic sand steppes	6260 Pannonic sand steppes	6260 Pannonic sand steppes	6260 Pannonic sand steppes	9110 Euro- Siberian steppic woods with Quercus spp.	9110 Euro- Siberian steppic woods with Quercus spp.	91N0 Pannonic inland sand dune thicket
	new desig- nation	establish- ment	restoration	improve- ment	new desig- nation	restoration	establish- ment
Investment of AHM Kft							
Measure 1	204 ha			150 ha			
Measure 2	124 ha			70 ha			
Measure 3		91 ha	40 ha				
Measure 4							13 ha
Measure 5			65 ha				
Measure 6							
Measure 7						4.4 ha	
Total	328 ha	91 ha	105 ha	220 ha		4.4 ha	13 ha
Eastern bypass and adjacent road net- work							
Measure 1	15 ha	36 ha		10 ha			
Measure 2						26.9 ha	
Measure 3							
Measure 4					14 ha		
Total	15 ha	36 ha		10 ha	14 ha	26.9 ha	
Modification of industrial railway tracks							
Measure 1		15.6 ha					
Measure 2							
Total		15.6 ha					
Dózsa tagi economic area							
Measure 1		10 ha					
Measure 2							
Total		10 ha					

Summary of The Estimated Budget of The Proposed Compensatory Measures

The budget includes the forest protection contributions due to forest utilisation and/or the costs of replacement afforestation.

The budget does not cover the amount of the compensation to be paid for the property owners, however for the time being we have no knowledge of any such claims raised by either the property owners or users.

It must be emphasised, that these costs are estimated, and during the actual realisation, detailed planning the costs of the interventions may be subject to changes depending on the year and timing of the realisation and the arrangement form thereof. The estimated budget is therefore unbounded from above, it must be based upon the detailed planning of the calculation.

	Total estimated im- plementation costs (million forint)	Utilized forest area (ha)	Forrest protec- tion contribu- tion (million forint)	Total costs (million fo- rint)
Investment of AHM Kft				
Measure 1: Enlargement and Improvement of Conditions of HUKN20014 "Hajósi homokpuszta" SAC		0		
Measure 2: HUKN200XX "Kékhegyi lőtér" pSCI: estab- lishment and improvement of conditions		0		
Measure 3: Pannonic sand steppes (6260) on the HUFH20009 "Gönyői- homokvidék" SAC: establish- ment and restoration on de- graded locations, and in the place of pine and acacia planta- tion within the damaged area		130,82		
Measure 4: Pannonic inland sand dune thickets (91N0) es- tablishment in place of pine and acacia plantations in the dam- aged areas		0		
Measure 5: Pannonic sand steppes (6260) restoration on the Territory of HUDI20046 "Szigeti homokok" SAC		0		
Measure 6: Invasive plants ex- termination in the surroundings of new habitats to be estab- lished in the site of HUFH20009 "Gönyői homokvidék" SAC		0		

	Total estimated im- plementation costs (million forint)	Utilized forest area (ha)	Forrest protec- tion contribu- tion (million forint)	Total costs (million fo- rint)
Measure 7: restoration of habi- tat in the Euro-Siberian steppic woods with Quercus spp (9110) habitat-type at the Special Area of Conservation of HUFH20009 "Gönyüi-homokvidék" SAC		0		
Monitoring		0		
Total		130,82		
Eastern bypass and adjacent road network				
Measure 1: Enlargement and restoration of the attached terri- tories on the Special Area of Conservation HUFH20009 "Gönyüi-homokvidék"		51,84		
Measure 2: Restoration of Eu- ro-Siberian steppic woods with Quercus spp(9110) habitat-type on the Special Area of Conser- vation of HUFH20009 "Gönyüi- homokvidék"		0		
Measure 3: invasive plants ex- termination in the Surroundings of new habitats to be estab- lished in the site of HUFH20009 "Gönyüi homokvidék" SAC		0		
Measure 4 Enlargement of the Special Area of Conservation of HU- DI20040 "Gödöllői-dombság peremhegyei"		0		
Monitoring		0		
Total		51,84		
Modification of industrial railway tracks				
Measure 1: Establishment of Pannonic sand steppes (6260) by replacement of forestry plan- tations		15,64		
Measure 2: invasive plants ex- termination in new habitats to be established in the site of HUFH20009 "Gönyüi homok- vidék"		0		
Monitoring		0		
Total		15,64		
Dózsa tagi economic area				
Measure 1: Establishment of		10,51		

	Total estimated implementation costs (million forint)	Utilized forest area (ha)	Forrest protection contribution (million forint)	Total costs (million forint)
Pannonic sand steppes (6260) by replacement of forestry plantations				
Measure 2: invasive plants extermination in new habitats to be established in the site of HUFH20009 "Gönyői homokvidék"		0		
Monitoring		0		
Total		10,51		
Total: (Total sum of the costs of measures of all investments)		208,82		

Assessment of The Proposed Compensatory Measures And The Schedule of The Investments

Time of Implementation of The Investments

Investment of Audi Motor Hungária Kft. is about to be launched in 2011, yet it is not going to affect the complete investment site (193 ha). There will be an intervention in 2011-2012 only on a part of the investment site amounting to 117 ha. Utilisation of the remaining parts is to be expected only after 2013.

The Eastern bypass road and the adjacent industrial roads will be built according to the available information in 2012-2013 on a part of the utilised area. The Northern industrial road and along with the section between the M19 highway and road 10 is to be expected in 2015.

Industrial railway tracks will be modified prospectively along with the first phase of the investment of Audi Hungária Motor Kft, that is 2011.

The time of covering Dózsa-tagi economic area with buildings is not yet known precisely, in our understanding it is to be expected around 2030.

Assessment of The Schedule of The Investments And The Compensatory Measures

For the proposed measures there are respectively detailed descriptions (Gantt diagram) of the relations between the particular measure and the schedule of the investment.

At a general level it can be noted, that the designation of the new Natura 2000 sites shall be finished before the commencement of the investments. Any changes occurring in the Natura 2000 areas or the Natura 2000 Database (Standard Data Form) will be reported to the European Commission after the proclamation of the new Natura 2000 sites. Planned habitat creating and reinstituting measures are however prolonged by their very nature.

Establishment of Pannonic sand steppes (6260) takes 8 years in case of appropriate preparations and necessary after-care. Still, certain ecological functions thereof may already be fulfilled after the second or third year. Restoration of the steppes and the devel-

opment of the conditions thereof must be calculated for a four-year-long period, yet most of the ecological functions are fulfilled from the first year. Creation of Pannonic inland sand dune thickets (91N0) takes 6 years to the technical acceptance test. Naturally, at that time there will be only a young population at the site, natural state of affairs can be reached even in 30-40 years. The recreation of the Euro-Siberian steppic woods (91I0) habitat type requires an extremely long time (12 years), and must be performed exclusively by application of utmost care.

Assessment of The Proposed Compensatory Measures From The Perspective of The Coherency of Natura 2000 Network

Investment of AHM Kft.

In the framework of the planned compensatory measures regarding the investment of AHM Kft the size of the territory designated for Pannonic sand steppes (6260) within Hungary increases by 738 ha, of which the actual area covered by Pannonic sand steppes is 328 ha. This measure takes place before commencing the investment (Measures 1 and 2). Newly designated areas feature similar natural conditions like those of the areas to be subject to deterioration, therefore habitat improving measures are planned, as well. Thus the measures will have a highly beneficial overall impact for the Natura 2000 network as such. Within the framework of Measure 3, interventions for the creation of Pannonic sand steppes will be made in the damaged areas. This will cover 91 ha, where Pannonic sand steppes will be created, and another 40 ha, where such habitat will be reconstructed. The measure cannot be implemented until commencing the investment, yet as a result thereof, there will be a 16 ha increase in the size of Pannonic sand steppes in the "HUFH20009 Gönyői homokvidék" SAC.

Besides the measures for habitat restorations and establishment additional 65 ha is involved in a restoration of Pannonic sand steppes (6260) in the site of HUDI20046 "Szigeti-homokok".

Pannonic inland sand dune thickets (91N0) is a category D habitat in this site, also the populations subject to deterioration are already severely fragmented and degraded, but in the framework of Compensatory Measure 4, such habitat will be established in a size of 13 ha. Although in 6 years only a young stand may be reached, its natural conditions and its future conservation possibilities are more beneficial compared to the recent ones. Regarding this type of habitat the net growth in size amounting 7.5 ha formulates an apparent advantage, with reference to the Natura 2000 network, as such and also to the damaged area.

The investment has only minimal impact (0.4 ha) on Euro-Siberian steppic woods with *Quercus* spp., and the actual damages to this type of habitat are only to be perceived in a later phase of the investment. In the framework of Measure 7, an area of 4.41 ha will feature habitat restoration. First results of the measure will be present before commencing the investment, therefore coherency of the Natura 2000 network is secured.

In order to support the success of the habitat restoration and establishment measures within a 100 meter perimeter thereof, an area of overall 165 ha will be cleansed from invasive plants in the "HUFH20009 Gönyői homokvidék" SAC.

Summarised, measures to be taken before the start of investment secure the coherency of the Natura 2000 network, and further measures will significantly increase the conservation status of the habitats subject to damages in the area to be damaged as well as from the perspective of the overall national population.

Eastern Bypass And Adjacent Road Network

Eastern bypass and adjacent road network is supposed to be constructed in several phases. 58 ha increase in the size of the territory of Pannonic sand steppes (6260) secures that the quantitative relation of this habitat does not diminish in the area. In the framework of the habitat rehabilitations planned alongside the increase the restoration of 9 ha of medium naturalness and deteriorated sand steppe takes place, beyond the 6 ha of good quality sand steppe. 36.77 ha of sand steppe will be established by the conversion of tree plantations to steppe, beyond those areas already covered therein. Consequently, 51 ha of the total 58 ha of Natura 2000 areas will be Pannonic sand steppes, which results in a significant overall increase in the areas subject to the damages.

The intervention in itself secures that the extent of Annex I habitats does not diminish in the Natura 2000 network during the construction of Phase I. By the commencement of Phase II the first results of the planned habitat establishing measures will be present, therefore the coherency of the Natura 2000 network is not damaged.

As for the Euro-Siberian steppic woods with *Quercus* spp habitat type, until the start of the investment a new site is to be established. Thus beyond the 41 ha increase of the Natura 2000 network the extent of this habitat type increases 7 ha within the Natura 2000 network. Besides the, as part of Measure 2, an area of 26.9 ha of steppic woods will be reconstructed, thus the compensatory measures will significantly improve the conservation status of this habitat.

In connection with the investment an area of 47 ha, a 100 meter perimeter of the habitat restoration and establishment measures will be cleansed from invasive plants in order to support the success thereof.

Industrial Railway Tracks Modification

Modification of the industrial railway tracks will surely destroy 1 ha of medium naturalness Pannonic sand steppes, that is going to be replaced in the damaged area by 15,64 ha of Pannonic sand steppes by the conversion of artificial tree plantations, according to the nature conservation goals of the affected Natura 2000 site.

In the case of this investment, considering the extremely low extent of damage, new Natura 2000 site are not designated. However, new, significant amounts of sites to be designated secure that the coherency of the Natura 2000 network is not damaged even until the success of the habitat establishment measures.

Dózsa-tagi Economic Area

As for the Dózsa-tagi economic area the proposed compensatory measures will not just be commenced, but also finished until the start of the investment, therefore the coherency and ecological processes of the Natura 2000 network will not be harmed. In the framework

of the compensatory measures proposed with reference to the investment, activities aimed at the establishment of the damaged habitat is performed within the damaged Natura 2000 site, in accordance with the nature conservation goals of the affected site. Resulting from the compensatory measures the extent of Pannonic sand steppes is increased by 8 ha. Focusing on the investment in itself – on a numerical basis – the quantity of the compensation is 333%, yet it is more significant from an ecological perspective, as instead of the former isolated patch of habitat the newly established one will be closely integrated the existing habitats of community interest.

Regarding All Investments

143 ha of Pannonic sand steppes (6260) will be replaced by an 343 ha increase of Natura 2000 areas (230 ha thereof will feature amelioration of the natural conditions) habitat covered territories will be inserted into network. 152,6 ha of Pannonic sand steppes will be created in the place of forestry tree plantations and habitat will be reconstructed in an area of 105 ha. From the perspective of the total Natura 2000 network the balance is apparently beneficial, since as a consequence of the implementation of the measures the size of PSS is increased by 351,6 ha, and also natural conditions are significantly improved in 105 ha. Coherency of the Natura 2000 network is granted even at the beginning of the investment in the case of damaging 7 ha of the habitat type Euro-Siberian steppic woods with *Quercus* spp. (9110), by means of the new designation of 14 ha of Euro-Siberian steppic woods. Due to the 30 ha habitat within the damaged area subject to restoration, secures the improvement of natural conditions and therefore the sustainability of ecological processes. 5.5 ha of PIT to be damaged by the investment is not a feature for which the site is designated, and also populations to be damaged are severely fragmented and degraded, but in the framework of Measure 4, 13 ha of such habitat is to be established. As for this habitat type, the outcome of the compensatory measures is apparently beneficial, both from the perspective of the Natura 2000 network and from the damaged area.

No separate compensatory measures have been designed for the Annex II species, because on the one hand impact minimising measures taken along the investment (e.g. reallocations) damage does not seem significant, while on the other hand compensatory measures prescribed for the conservation of the habitats will greatly benefit also to these species by the increase of the size of habitats. Species to be harmed are also present in newly designated areas, often in higher numbers, than the population facing the damages.

Competencies And Tasks In The Implementation Process

Due to the fact that the compensatory measures are extensive and widespread, their implementation requires strong co-ordination and co-operation of the actors. The designation of actors and the definition of responsibilities are of utmost importance in order to secure co-operation and clarity.

Designation of Investors

Investment	Investor
AHM Kft. investment site	AUDI Hungária Motor Kft
Eastern bypass and adjacent road network	Hungarian State (represented by: National Infrastructure Development Co.)
Modification of industrial railway tracks	AUDI Hungária Motor Kft.
Dózsa-tagi economic area	City of County Rank of Győr

Responsible Parties of the Particular Tasks

All planned compensatory measures are to be executed exclusively on state-owned properties. During the negotiations, organisations representing the proprietor of the particular sites, as well as the property managers and users thereof, have agreed on the roles and distribution of tasks of the involved state authorities. Every decision maker from the proprietor and property manager side has provided written consent to the utilisation of the sites for compensatory goals, and to the measures to be taken in the sites. Property managers have also declared to undertake the implementation of the measures in their own sites respectively.

In order to secure the execution of the compensatory measures, organisations exercising property rights as well as organizations acting as property managers and users, have provided written confirmation to support the utilisation of the sites for Natura 2000 compensatory measures. The sites to be utilized for such measures - were listed in the request for the Commission's opinion and are subject to final appointment during the detailed planning procedures. In order to define final and optimal set of compensatory measures and to achieve their fastest possible implementation, a continuous discussion with the property owners and property managers is secured.

Accordingly, the following organisations have issued declarations of consent:

- Ministry of Defence (as property manager)
- KAEG Zrt (Kisalföld Forestry) (as property manager)
- Szent István University (as property manager)
- National Land Fund Management Organisation (as the representative of the property owner, the Hungarian State)
- Hungarian State Holding Company, (as the representative of the property owner, the Hungarian State)

Compensatory measures are connected to several investment projects and are to be executed in different parts of the country. As a result, the actual compensatory measures shall be prescribed by the responsible authorities bearing competence and sphere of action in the particular proceeding. Compensatory measures related to the designation of new Natura 2000 sites will be ordained and announced by the Hungarian Government, amending the KvVM Degrees of 275/2004. (X.8.) and 14/2010. (V.11) as well as the Natura 2000 database.

Compensatory measures in connection with the planned Audi investment - excluding the designation of new Natura 2000 sites – shall be prescribed by the North-Transdanubian Environmental, Nature Conservation and Water Management Inspectorate, either as chief authority of its own official procedure in environmental authorisation and IPPC or as a competent authority involved in the procedure of another authority, e.g. in the process of issuing a building permit.

In all cases, authorities with territorial competence - such as the environmental authority, forest authority, land authority and transport authority - are responsible for the prescription, control and official supervision of the professional implementation of the compensatory measures. Compensatory measures will be implemented by companies, organisations or institutions contracted by the particular investor. Monitoring and professional support of all these activities will be co-ordinated by the various National Park Directorates with territorial competence.

Central co-ordination of implementation (governmental responsibility)

- Hungarian Government (Ministry of Rural Development, Ministry for National Economy)

Issuing official permissions and subsequent control thereof

- Inspectorates for Environmental Protection, Nature Conservation and Water Management (nature conservation authorities: North-Transdanubian Inspectorate for Environmental Protection, Nature Conservation and Water Management; Middle-Danube-Valley Inspectorate for Environmental Protection, Nature Conservation and Water Management, Lower-Tisza Inspectorate for Environmental Protection, Nature Conservation and Water Management)
- Forestry Division of the Central Agricultural Office (competent county forestry authorities)
- Győr District Land Registry Office
- Construction authorities
- National Transport Authority

Professional control and support of the implementation

- National park directorates with territorial competence (Directorate of Fertő-Hanság National Park, Directorate of Duna-Ipoly National Park, Directorate of Kiskunság National Park)

Designation of new Natura 2000 sites

- Hungarian Government (Ministry of Rural Development)

Implementation of the actual measures

- Investor, and contractors hired thereby

Monitoring of the success of the measures

- National park directorates having territorial competence (Directorate of Fertő-Hanság National Park, Directorate of Duna-Ipoly National Park, Directorate of Kiskunság National Park)
- Independent experts

Compilation of reports to be sent to the European Commission

- Hungarian Government (Ministry of Rural Development and Ministry for National Economy)

Proposed Compensatory Measures In Connection With The Investment of AHM Kft

Values of Community Interest To Be Compensated For Due To The Investment

In case of realisation of the investment planned by AHM Kft on Natura 2000 areas, 112 ha of PSS and 0,4 ha of Euro-Siberian steppic woods with *Quercus* spp. (9110) habitats will be destroyed. Also, approximately 3 ha of PSS is supposed to be gradually degrading due to fragmentation. The investment has a smaller impact on degraded fragments of habitats classifying as Pannonic inland sand dune thickets. This later does not qualify as a designating habitat at the given site, the SDF data sheet marks it "D".

Species of community interests are primarily the strictly protected, HD Annex I species the *Carabus hungaricus* and the *Iris humilis* ssp. *arenaria*. There are a number of other species of community interest (*Rana esculenta*, *Lacerta agilis* etc.) present in the area, but the site is not designated for these. Proposed compensatory measures generally have a beneficial impact on these species as well.

Proposed Compensatory Measures

Measure 1: Enlargement And Improvement Of HUKN20014 "Hajósi Homokpuszta" SAC

A shelving area of sand dunes, primarily a sand steppe surrounded by forests, it is a mosaic of perennial and annual sand steppes, and a smaller portion of closer, less significant dry grasses. Typical graminaceous species are the Hungarian fescue (*Festuca vaginata*), Needle grass (*Stipa capillata*), and Cheat Grass (*Bromus tectorum*). There are several, partly spontaneously grown fringing forests, alien to the grass land. There is also occasional shrubbery. In the middle of the last century the area was used in viticulture, yet later, as the cultivation terminated, the dunes have been reclaimed by Nature: propagulum sources thereto have been secured by the hedges of the cultivated areas, smaller remnants of steppe and the near-natural clearings of forested areas. For a while it was used as military driving field, thus it became a military managed property. Milkweed (*Asclepias syriaca*) infestation is severe. There is currently no intensive utilisation. Ecological situation of the Annex I sand steppe is medium.

Affected land registry numbers:

Settlement	Affected land registry number	Branch of cultivation	Complete area (ha)	Planned N2000 site (ha)	Proprietor	Comment
Hajós	0424/2		277,2875	277,2875	MÁ: HM	
Total:			277,2875	277,29		

Annex I habitat:

- PSS – 204 ha

Annex II species:

- *Carabus hungaricus*

Exposition of Restoration and Improvement Measures Required for the Area:

There is a need on the non-forest cultivation areas for the extermination of non-indigenous arboreal vegetation, primarily that of the tree of heaven (*Ailanthus altissima*) and the acacia (*Robinia pseudo-acacia*) population. The affected area is appr. 25 ha. During the extermination combined mechanical and chemical interventions are required, and throughout the use of chemicals due care must be taken of the protection of the natural habitats of the area. From among the herbaceous invasive plants Kansas milkweed (*Asclepias syriaca*) is present in the area in the highest numbers, it requires primarily chemical extermination on 150 ha (various coverage). At several locations sand steppe is endangered by the expansion of native shrubs (e.g. hawthorn), its repression is necessary, but not its complete removal. As part of the restoration interventions leftover concrete facilities from the prior military use of the area and the illegal wastes must be removed.

Technical risks of the measure:

Technical risks are not perceived in the implementation of the measure, these interventions are based on long standing methods.

Overview map of the area to be designated



Time Schedule of the Measure:

The invasive plants extermination cannot be done in one year, according to the up-to-date practice, such intervention needs minimum two, optimally three years. Any shorter period for the intervention may result in the remaining single organisms re-infesting the complete area again. For the repression of native shrubs repeated cutting of their after-crops may be useful. This also need at least two, but rather three years.

Intervention	2011	2012	2013	2014	2015	2016	2017	2018
Investment								
Designation of Natura 2000 site								
Restoration of habitat								
Planning, authorization								
Non-indigenous arboreal plants extermination								
Native shrubs repression								
Herbaceous invasive plants removal								
III. waste removal, demolitions								

The investment is realised on 114 ha until 2012, the remaining 78 ha is perceived to be covered by construction after 2013.

Estimated budget of the measure:

Activity	Quantity	Unit price	Estimated cost (million HUF)
Preparation of Natura 2000 designation, official procedures		HUF	
Planning, evaluation, authorization		HUF	
Non-indigenous arboreal vegetation extermination	25 ha	HUF/ha/3 years	
Herbaceous invasive plants removal	150 ha	HUF/ha/3 years	
Native shrubs repression	60 ha	HUF/ha/3 years	
Illegal waste removal, demolition of construction left over from military use	23		
Total:			

It must be emphasised however, that these are estimated costs, and the actual costs may be subject to changes in the course of the effective implementation, depending on the year, period and form thereof.

The milestones and indicators of the measure:

Milestone	Indicator
Natura 2000 designation (deadline: June 30, 2011)	Governmental and Ministerial Degrees Proposal for the European Commission Land registry entry (It will be realized later, since it is subject to a separate official procedure.)
Planning (deadline: March 30, 2011)	Documentation of the detailed intervention plan and the request for permission
Authorization (deadline: May 30, 2011)	Official permissions
Exterminations (deadline: 30 October, 2014)	Documentation of the works done Preliminary monitoring reports Documentation of the work done Preliminary monitoring reports
Illegal waste removal, demolitions (deadline: 30 November, 2012)	Declaration of Acceptance from the waste disposal facility
Description of conditions and evaluation of changes (deadline: 31 December, 2015)	Preliminary monitoring reports Summary report of the outcomes of the measure

Measure 2: HUKN200XX “Kékhegyi Lőtér” pSCI: Establishment And Improvement Of Conditions

Lying in the junction of Homokhátság and Bácskai-löszöshát, it is a shelving area covered with dunes. It is a sand steppe on bedrock that is sand mixed with yellow soil (less loose than the average dune region). There are no habitats of similar quality (in terms of size and vegetation) in the region. In spite of its apparent natural value, the majority of its territory is considered a non-significant dry grass land in the Á-NÉR system, spotted by smaller sand steppe meadows along with fields of annual and perennial sand grasses. (there are major spots thereof around the so-called Kék-hegy dune). Its most typical grass species are the thin fescue (*Festuca pseudovina*) and *Botriochloa ischaemum*. The great field of steppe is mainly surrounded by forests, where non-indigenous species form the majority of tree species. The area was once a shooting range, today it is pastured by sheep. The grassy fields are mixed with partly spontaneously grown forest spots, and more than 50 (partly former forest zones) ha is covered by shrubbery of various thickness composed of hawthorn and blackthorn. The shrubberies are mixed with fields of sand grasses. The calculated extension of the HD Annex I Pannonic sand steppes includes 1 ha at a real estate in Érsekcsanád under the registry number of 0294/1, as well as 7 ha at the real estate under the registry number of 0296/1. These are near-natural clearings of closed forests, where on steeper dune surfaces with looser sand soil, typical perennial sand grasses grow. These clearings are unmanaged, forestry may have a beneficial impact thereon. To the East, the Kék-hegy dune steeply breaks, offering a natural lookout spot forming a significant value for the landscape protection. The condition of the Annex I PSS is mostly medium, in smaller quantities it is good. Majority of the grasses are native.

Affected land registry numbers:

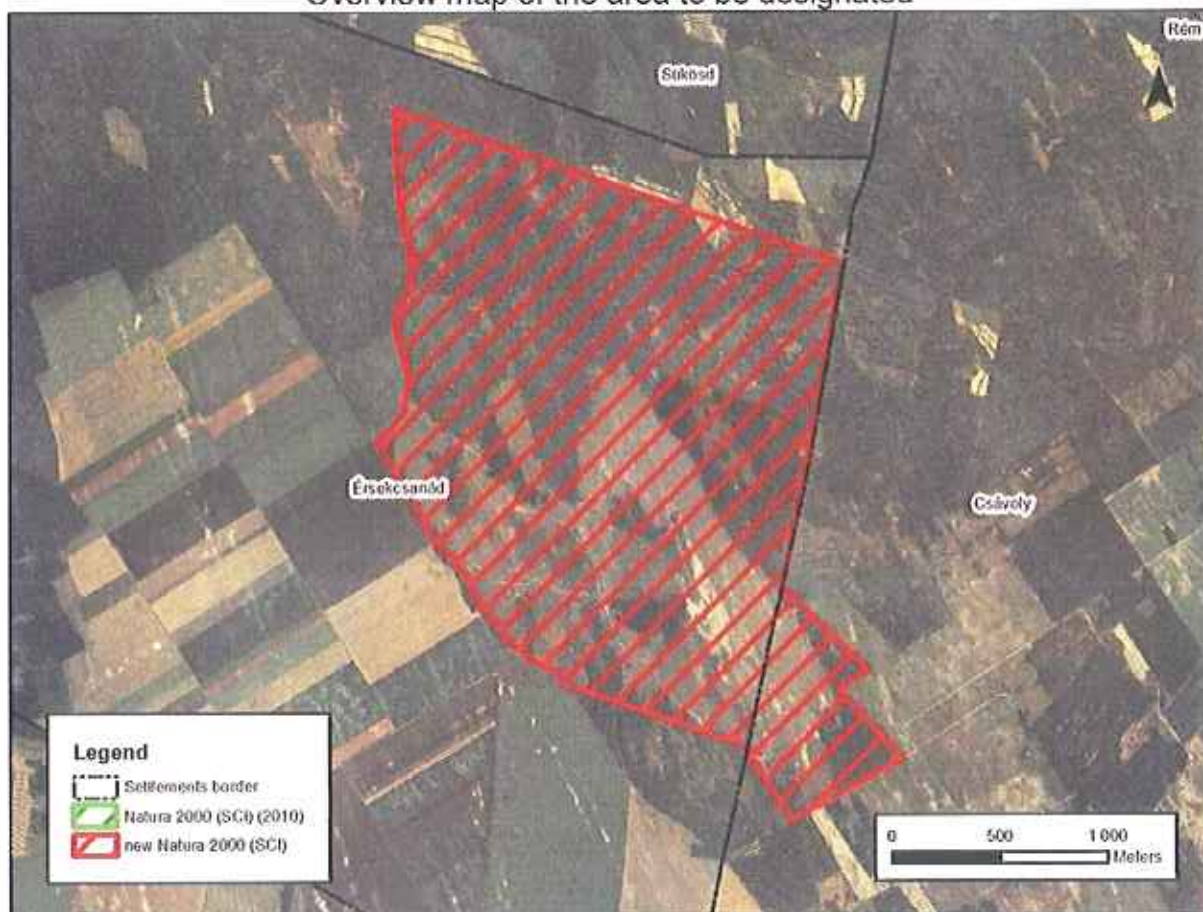
Settlement	Land. Reg. no.	Branch of cultivation	Total size (ha)	N2000 site (ha)	Proprietor	Comments
Érsekcsanád	0294/1	uncultivated	206,1442	206,1442	Hungarian State: Ministry of Defense	
Érsekcsanád	0295	uncultivated	1,6573	1,6573	Hungarian State: Ministry of Defense	
Érsekcsanád	0296/1	uncultivated	211,3049	211,3049	Hungarian State: Ministry of Defense	
Csávoly	0177/2	uncultivated	41,1334	41,1334	Hungarian State: Ministry of Defense	
Total:			460,2398	460,2398		

Annex I Habitat:

Pannonic sand steppes – 124 ha

Annex II species:
Carabus hungaricus
(probably:) *Spermophilus citellus*

Overview map of the area to be designated



Exposition of Restoration and Improvement Measures Required for the Area:

There is a need on the non-forest cultivation areas for the extermination of non-indigenous arboreal vegetation, primarily that of the tree of heaven (*Ailanthus altissima*) and the acacia (*Robinia pseudo-acacia*) population. The affected area is appr. 25 ha. During the extermination combined mechanical and chemical interventions are required, and throughout the use of chemicals due care must be taken of the protection of the natural habitats of the area. From among the herbaceous invasive plants Kansas milkweed (*Asclepias syriaca*) is present in the area in higher numbers, it requires primarily chemical extermination on 10 ha. At several locations sand steppe is endangered by the expansion of native shrubs (e.g. hawthorn), its repression is necessary, but not its complete removal. As part of the restoration interventions leftover concrete facilities from the prior military use of the area and the illegal wastes must be removed.

Technical risks of the measure:

Technical risks are not perceived in the implementation of the measure, these interventions are based on long standing methods.

Time Schedule of the Measure:

The invasive plants extermination cannot be done in one year, according to the up-to-date practice, such intervention needs minimum two, optimally three years. Any shorter period for the intervention may result in the remaining single organisms re-infesting the complete area again. For the repression of native shrubs repeated cutting of their after-crops may be useful. This also need at least two, but rather three years.

Intervention	2011	2012	2013	2014	2015	2016	2017	2018
Investment								
Designation of Natura 2000 site								
Restoration of habitat								
Planning, authorization								
non-indigenous arboreal plants extermination								
native shrubs repression								
herbaceous invasive plants removal								
III. waste removal, demolitions								
Landscaping								

The investment is realised until 2012 on 114 ha, the remaining 78 ha is perceived to be covered by constructions after 2013.

Estimated budget of the measure:

Activity	Quantity	Unit price	Estimated cost (million HUF)
Preparation of Natura 2000 designation, official procedures		IUF	
Planning, evaluation, authorization		HUF	
non-indigenous arboreal vegetation extermination (mechanical and chemical extermination)	25 ha	HUF/ha	
herbaceous invasive plants removal	10 ha	HUF/ha	
native shrubs repression	60 ha	HUF/ha	
illegal waste removal, demolition of construction left over from military use	23		
Landscaping	10 ha		
Total:			

It must be emphasised however, that these are estimated costs, and the actual costs may be subject to changes in the course of the effective implementation, depending on the year, period and form thereof.

The milestones and indicators of the measure:

Milestone	Indicator
Natura 2000 designation (deadline: June 30, 2011)	Governmental and Ministerial Degrees Proposal for the European Commission Land registry entry (realised to be at a later stage, as it is subject to another official proceeding)
Milestone	Indicator
Planning (deadline: March 30, 2011)	Detailed intervention plan and the documentation of the request of permission
Authorization (deadline: May 30, 2011)	Official permissions
Planning (deadline: June 30, 2011)	Detailed intervention plan and the documentation of the request of authorization
Authorization (deadline: 31 December, 2011)	Official permissions
Exterminations (deadline: 30 October, 2014)	Documentation of the work done Preliminary monitoring reports
illegal waste removal, demolitions, Landscaping (deadline: 30 November, 2012)	Documentation of the work done Declaration of Acceptance from the waste disposal facility
Description of conditions and evaluation of changes (deadline: 31 December, 2015)	Preliminary monitoring reports Summary report of the outcomes of the measure

Measure 3: Pannonic Sand Steppes (6260) On The HUFH20009 "Gönyüi-homokvidék" SAC: Establishment And Restoration On Degraded Locations, And In The Place Of Pine And Acacia Plantation Within The Damaged Area

The majority of former grasslands have been afforested between the two world wars, and after the World War II. Among the pine and acacia plantations smaller clearings of sand steppe remained, however the majority of these have been overtaken (50-100%) in the last 20 years by the spontaneously expanding acacia, (*Robinia pseudo-acacia*), the scotch pine and black pine (*Pinus sylvestris* and *P. nigra*). Moreover in certain area overwhelming number of Kansas milkweed (*Asclepias syriaca*) is destroying the grasslands. Clearings overgrown by shrubberies caused feathertop (*Calamagrostis epigeios*) to become the dominant species, due to the eutrophisation. Sand grasses are only present by single organisms. In the framework of the measure remnants of the former clearings are used as a basis for the establishment of PSS (in a cohesive size of 10-50 ha) and pine-and acacia plantation among the existing steppes are transformed into grasslands.

Objectives:

- Establishment of appr. 85 ha Pannonic sand steppe on the HUFH20009 Gönyüi-homokvidék Special Area of Conservation, by replacement of gaming lands, spontaneous acacia groups, acacia and pine plantations.
- Restoration of Pannonic sand steppes in a size of appr. 40 ha on the HUFH20009 Gönyüi-homokvidék Special Area of Conservation

Value of Community interest to be compensated for:

- Pannonic sand steppes (habitat establishment)
- *Carabus hungaricus* (establishment of habitat suitable for the species)
- *Iris humilis* ssp. *arenaria* (establishment of habitat suitable for the species)

The Measure may be beneficial for the following species of community interest:

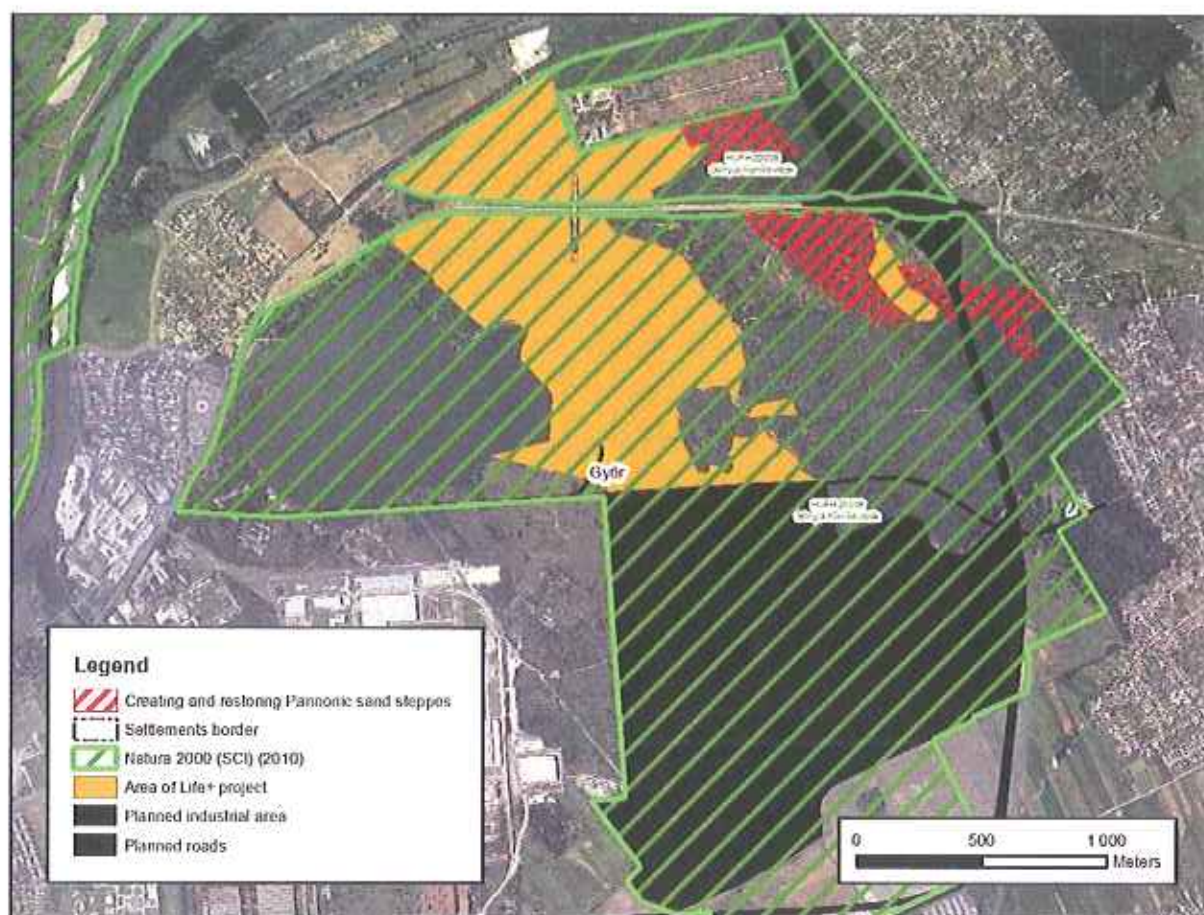
- *Lacerta agilis*
- *Lacerta viridis*

Affected forrest parts:

Settle-ment	Land registry no.	Forest part	Size of area	Proprietor	Forest manager	Comments
Gönyű		3 TI	1,9	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		3 TN1	5,83	MÁ: KAEG Zrt.	KAEG Zrt.	Partially
Gönyű		3 TN2	1,49	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		5 G	0,68	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		5 H	2,18	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		5 I	1,68	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		5 TI1	2,23	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		5 TI2	2,88	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		5 TI3	0,22	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		6 C	1,73	MÁ: KAEG Zrt.	KAEG Zrt.	Partially
Gönyű		6 H	0,97	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		6 N	2,54	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		6 TI1	5,81	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		6 TI2	0,66	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		7 G	1,15	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		7 T	3,03	MÁ: KAEG Zrt.	KAEG Zrt.	Partially
Gönyű		7 TI1	0,57	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		7 TI2	0,75	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		7 TI2	0,47	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		8 H	4,66	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		8 TI1	1,41	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		8 TI2	0,23	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		8 TI3	1,47	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		8 TI3	0,05	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		8 TI4	1,98	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		11 CE	1,16	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		11 J	1,21	MÁ: KAEG Zrt.	KAEG Zrt.	Partially

Settle- ment	Land registry no.	Forest part	Size of area	Proprietor	Forest manager	Comments
Gönyű		11 K	1,75	MÁ: KAEG Zrt.	KAEG Zrt.	Partially
Gönyű		11 L	2,49	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		11 M	1,61	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		11 TI1	1,24	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		11 TI2	1,97	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		12 B	6,4	MÁ: KAEG Zrt.	KAEG Zrt.	Partially
Gönyű		12 CE1	0,96	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		12 CE2	1,93	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		12 TI	1,82	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		19 I	3,32	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		19 N	3,01	MÁ: KAEG Zrt.	KAEG Zrt.	
Gönyű		19 TI	2,32	MÁ: KAEG Zrt.	KAEG Zrt.	
Győr		564 J	4,02	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	
Győr		564 K	3,79	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	
Győr		565 CE1	0,95	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	Partially
Győr		565 D	3,86	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	
Győr		565 E	10,33	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	
Győr		565 G	1,25	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	Partially
Győr		565 G	3,38	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	
Győr		569 TI	1,85	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	
Győr		571 A	3,3	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	
Győr		571 B	1,98	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	
Győr		571 C	5,56	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	
Győr		575 A	0,46	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	
Győr		575 B	0,92	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	
Győr		575 C	2,61	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	
Győr		575 D	2,56	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	
Győr		575 E	3,05	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	
Győr		575 F	3,2	MÁ: Honv. Min.	HM Bp-i Erd. Zrt.	
			130,83			

Areas to be transformed into grasslands on the territory of Györszentiván shooting range.



Exposition of the implementation of the measure

The task of planning and authorisation is to provide for a detailed evaluation of the affected areas (basic soil scientific and chemical evaluation, botanical evaluation), to mark the potentially remaining trees, smaller groups of trees (exclusively native tree specimens may be kept, if they fit for the given habitat), to evaluate the invasive plants to be eliminated, to select the best method for extermination bearing in mind the occurrence, to determine the necessary soil cultivation work, to mark the locations where soil cultivation is to be avoided. Throughout the planning special attention must be paid to the measuring of the vegetation of the former clearings. Maintenance of the spots of grass, dominated by sand grass species, existing currently on the clearings must be secured, even if these only reach a size of a few square meters. Compilation of documentations required for the official permission and the filing in of the requests for permission are conducted in the course of the intervention .

Areas to be transformed into grasslands on the territory of Gönyü shooting range I.



The first step of converting tree plantations into grasslands in every case is the complete removal (this mostly includes the roots) of the tree stock. This is followed by the available most complete extermination of invasion plants, but it must be taken into consideration, that after sodding, these species may reappear again from after-crop root or from the seed reserve remaining in the soil. During the extermination mechanical and chemical methods are both necessary, while maintaining, that inasmuch as possible, mechanical methods shall prevail. Extermination of certain species, such as the tree of heaven, the silver-berry, the acacia and the Kansas milkweed is not possible by mechanical methods only. Seeds for sowing shall be collected from local, good quality grasslands (that are free from invasion plants and feathertop). For the harvest, ordinary grain combines can be used, however the settings of the machine must be adjusted (reducing height of tray, decreasing blow) Harvest must be done at the time of the ripening of the seeds (start of whirling). Care must be taken about harvesting only in dry weather, in dry grass, harvesting wet ruins the combine and also the seeds harvested would mould. Harvested seeds may be stored for maximum two years, using it in the third years requires an increase of the seed quantity by 40-50 kg/ha, because a part of the seeds loose their capacity for germination in the storage. During the harvest, depending on the actual weather conditions, 30-500 kg of seeds may be accounted for by hectares.

Soil preparation work required for the sodding may only be commenced, if the portion of the coverage by invasive plants is reduced below 1% of the original rate. During the detailed planning it must be determined, if ploughing, deep ploughing or disking must be performed before harrowing and preparation of seedbeds. Sowing of grass must be done in all cases locally produced or harvested mix of seeds, with a minimum quantity of 25 kg/ha.

In case of draught several repetitions of sowing must be accounted for. During the after-care, removal of unwelcome species and dead organic substance must be achieved primarily by reaping and by removing hay. Successfulness of the after-care must be constantly monitored, as in a few cases reaping does assist the development of the grass in the 4-5th years. After-care must be supervised by the results of monitoring.

Areas to be transformed into grasslands on the territory of Gönyű shooting range II.



Technical risks of the measure:

In the framework of the measurement some problem may emerge if adverse weather conditions set back harvesting of seeds necessary for sowing of grass or the harvested seed is not of an appropriate quality (e.g. the portion of germinating seeds is extremely low due to serious draught). In order to counter such problems, harvesting the necessary amount of seed (min. 25 kg/ha) must be started already in the first year (2011) and the suitable storage thereof (for a maximum period of three years) must be secured until sowing. Adverse weather conditions may also result in a frustrated sowing (e.g. portion of burgeoning remains low). The solution is repeated sowing, costs thereof are also represented in the budget. In the first two years certain unwelcome species are probable to appear in mass quantities (e.g. *Ambrosia elatior*, *Erigeron canadensis*, *Calamagrostis epigeios*), and also Kansas milkweed may reappear from the its seed reserves in the soil. Protection against these species is possible by the careful planning and implementation of after-care measures, which supposes continuous expert monitoring of the sodding process and potential supervision of the after-care techniques applies.

Time Schedule of the Measure:

Intervention	2011	2012	2013	2014	2015	2016	2017	2018
Investment								
restoration of habitat								
Planning, authorization								
logging, cutting cleanse								
Cartridge exemption								
Stumping, root collection								
invasive plants removal								
soil preparation, sodding								
After-care measures								

The investment is implemented in 114 hectares until 2012, the remaining 78 ha is perceived to be covered by constructions after 2013.

The implementation of the measure requires a relatively long time. At least one year shall be granted for preparation and official licensing procedures. After the authorisation tree stock removal is immediately possible, yet sodding should not be started until the invasive plants living in the area (particularly *Ailanthus altissima*, *Asclepias syriaca*, *Robinia pseudo-acacia*) coverage is reduced below 1%. Earlier sodding would result in protective measures against these species on an already developing grass, that could slow down the progress. Extermination of invasive plants may be finished in 1-3 years depending on the level of the infestation. Establishment of the grassland requires at least two years, because in case of adverse weather conditions sowing may need repetitions. Sodding may only be successful if during the After-care measures the settlement of unwanted species (e.g. *Calamagrostis epigeios*, *Erigeron canadensis*, *Agropyron repens* etc.) and the resettlement of invasive plants is precluded. The After-care measures shall be maintained until the grassland reaches a near-natural condition, that is perceivably 4-5 years according to our prior examinations. Maintenance of the grasslands does not require measures from that point on, yet occasional interventions may become necessary. These however may be performed in the course of ordinary maintenance. The above timing is rather pessimistic, in ideal circumstances this measure may be finalised in 2-3 years.

The implementation of the measure requires a relatively long time. At least one year shall be granted for preparation and official licensing procedures. After the authorisation tree stock removal is immediately possible, yet sodding should not be started until the invasive plants living in the area (particularly *Ailanthus altissima*, *Asclepias syriaca*, *Robinia pseudo-acacia*) coverage is reduced below 1%. Earlier sodding would result in protective measures against these species on an already developing grass, that could slow down the progress. Extermination of invasive plants may be finished in 1-3 years depending on the level of the infestation. Establishment of the grassland requires at least two years, because in case of adverse weather conditions sowing may need repetitions. Sodding may only be successful if during the After-care measures the settlement of unwanted species (e.g. *Calamagrostis epigeios*, *Erigeron canadensis*, *Agropyron repens* etc.) and the resettlement of invasive plants is precluded. The After-care measures shall be maintained until the grassland reaches a near-natural condition, that is perceivably 4-5 years according to our prior examinations. Maintenance of the grasslands does not require measures from

that point on, yet occasional interventions may become necessary. These however may be performed in the course of ordinary maintenance. The above timing is rather pessimistic, in ideal circumstances this measure may be finalised in 2-3 years.

Estimated budget of the measure:

Activity	Quantity	Unit price	Estimated cost (million HUF)
Planning, evaluation, authorization		HUF	
logging and lumber removal from clearing	88,68 ha	HUF/ha	
tree vegetation removal on the territories directly used for forestry	42,16 ha	HUF/ha	
Cartridge exemption	72 ha	HUF/m2	
Stumping	100 ha	HUF/ha	
Root collection and removal	100 ha	HUF/ha	
invasive plants removal	100 ha	HUF/ha	
soil preparation ploughing/disking, harrowing	105 ha	HUF/ha	
Sodding grass seed harvest, drying, storage, seed bed preparation, sowing, compression	105 ha	HUF/ha	
After-care measures (1-3 years) shaft tearing, removal of settled invasive plants by mechanical and chemical means, later only if necessary	131 ha	HUF/ha/3 years	
After-care measures (4-7 years) shaft tearing	131 ha	HUF/ha/4 years	
Cost of replacement forests or forest protection contribution	130,82 ha		
Total:			

It must be emphasised however, that these are estimated costs, and the actual costs may be subject to changes in the course of the effective implementation, depending on the year, period and form thereof.

According to data from the National Forest Stock Database the utilisation effects an amount of 130,82 ha areas under the scope of the Act on Forests. From these 88,68 hectare is covered by forests, while 42,16 hectare classifies as area directly serving forestry. Forest protection contribution for areas directly serving forestry the amount of forest protection contribution is 2.5 times the base of contribution, that is 250 thousand forint per hectare. From the 88,68 hectare area for the 15,05 hectare actual forest no forest protection contribution is due according to section 82.§ (3) c) of Act on Forest Protection.

The milestones and indicators of the measure:

Milestone	Indicator
Planning (deadline: June 30, 2011)	Detailed plan and documentation of the request for authorization
Authorization (deadline: 31 December, 2012)	Official permissions
pre-sodding work (deadline: 30 October, 2013)	Increased size of the areas made suitable for sodding and Documentation of the work done

Milestone	Indicator
sodding (deadline: 30 November, 2014)	Documentation of the finished sodding
Description of conditions and evaluation of changes (deadline: 31 December, 2018)	Preliminary monitoring reports Annual summary report of the outcomes of the measure

Measure 4: Pannonic Inland Sand Dune Thickets (91N0) Establishment In Place Of Pine And Acacia Plantations In The Damaged Areas

The portion of Pannonic inland sand dune thickets in the damaged areas (HUFH20009 Gönyűi-homokvidék) is very small compared to the natural state of affairs. Their place is taken over by plantations of acacia groups and pines established between the two world wars and after World War. The objective of this measure is to increase the area occupied by Pannonic inland sand dune thickets in suitable territories for their growth.

Objectives:

12.85 ha Pannonic inland sand dune thickets establishment at the Special Area of Conservation of "HUFH20009 Gönyűi-homokvidék" replacing acacia and pine plantations.

Value of Community interest to be compensated for:

Pannonic inland sand dune thickets (Junipero-Populetum albae) (habitat establishment)

Affected forest parts:

Settlement	land registry number	Forest part	Area (ha)	Proprietor	Forest manager	Comments
Győr		568 K	3.8	Hungarian State: Ministry of Defense	HM Bp Erd. Zrt.	Partially. The complete area covers 4,16 ha, however only a small portion is affected in the investment (Northern Industrial Road)
Győr		568 J	2.08	Hungarian State: Ministry of Defense	HM Bp Erd. Zrt.	
Győr		575 G	2.17	Hungarian State: Ministry of Defense	HM Bp-i Erd. Zrt.	
Győr		575 H	0.6	Hungarian State: Ministry of Defense	HM Bp-i Erd. Zrt.	

Settle-ment	land re-gistry number	Forest part	Area (ha)	Proprie-tor	Forest manager	Comments
				fense		
Győr		575 I	3.36	Hunga-rian State: Ministry of De-fense	HM Bp-i Erd. Zrt.	
Győr		575 J	0.84	Hunga-rian State: Ministry of De-fense	HM Bp-i Erd. Zrt.	
Total:			12.85			

Exposition of Restoration and Improvement Measures Required for the Area:

The first step of the measure is an individual plan, developed for forest parts. There are occasional native tree species in all forest parts, these must be marked in the course of the measuring. Forest restructuring is an activity being subject to authorisation, which requires the modification of the plan of management. After planning and receiving authorisation unmarked tree specimens have to be removed. Stumps of acacia and tree of heaven must be greased in order to avoid offset. Plantings are done via saplings. In the course of maintenance and supplementation continuous removal of reappearing invasive plants must be secured along with the protection and assistance to development of saplings.

Technical risks of the measure:

In the course of the restructuring of the forests a problem may arise from the significant quantity of seeds of non-indigenous species still in the soil. During the maintenance fulminating new specimens must be immediately destroyed. According to local experience, in case adverse weather conditions significant supplementation or even repetition of the complete planting may be necessary. The solution of this problem must be represented in the budget.

Pannonic inland sand dune thickets establishment at Györszentiván shooting ground



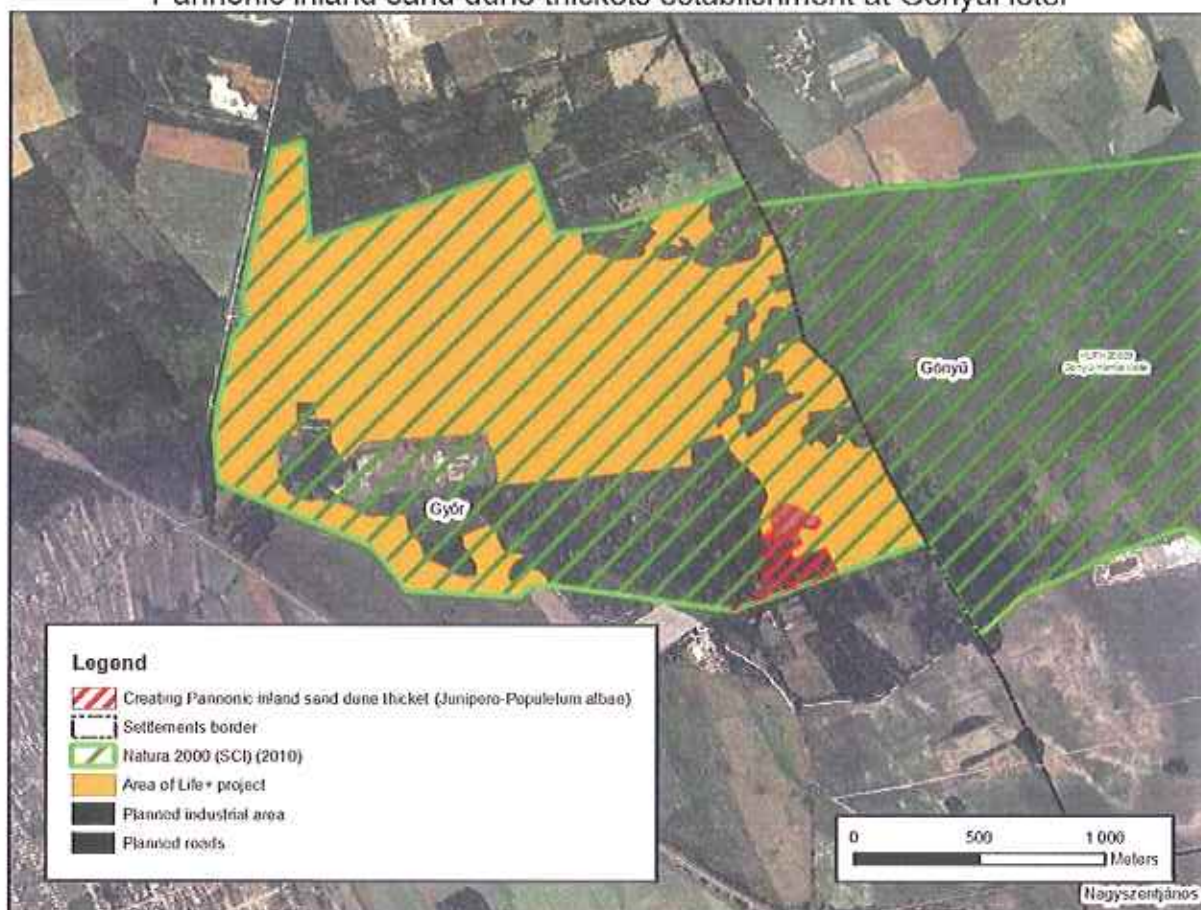
Time Schedule of the Measure:

Intervention	2011	2012	2013	2014	2015	2016	2017	2018
Investment								
Restoration of habitat								
Planning, authorization								
logging, cutting cleanse								
Deployment								
Maintenance (for 6 years)								

The investment is implemented in 114 hectares until 2012, the remaining 78 ha is perceived to be covered by constructions after 2013.

Formation of forest and particularly tree plantations of non-indigenous species into natural woods is a long process lasting for decades, particularly so in extreme habitats. In the framework of the compensatory measures only the first steps of this process may be performed, those requiring major intervention, from the deployment to the so called technical handover. (That is the point, where the restoration can be deemed successful.) After the technical handover the development of the forest may be granted by minor interventions in the framework of ordinary forestry.

Pannonic inland sand dune thickets establishment at Gönyői lőtér



Estimated budget of the measure:

Activity	Quantity	Unit price	Estimated cost (million HUF)
Planning, evaluation			
Authorization			
logging and cutting cleanse	13 ha		
Cartridge exemption	13 ha		
invasive plants removal	13 ha		
Restoration and maintenance for 6 years	13 ha		
Total:			

It must be emphasised however, that these are estimated costs, and the actual costs may be subject to changes in the course of the effective implementation, depending on the year, period and form thereof.

The milestones and indicators of the measure:

Milestone	Indicator
Planning (deadline: June 30, 2011)	Intervention plan by forest parts
Authorization (deadline: August 30, 2011)	Official permissions Modification of plan of management